THE PREFACE.

SO *many and ſo large Steps having been made towards the Diſcovery of* Nature *by the indefatigable Induſtry of this* laſt Age, *it may ſeem as if the Subject were almoſt exhauſted, and* Nature *her ſelf wearied with the Courtſhips of ſo many* Pretenders: *But if on the other ſide, we conſider the vaſt, not to ſay* boundleſs Extent *of the* Univerſe, *and that the Diſcovery of one* Phænomenon *leads to, as well as entices to the Search after another; together with how eaſie a thing it is, even to impoſe on our ſelves* groundleſs Opinions *inſtead of* Real Knowledge; *we muſt own the Work at leaſt great enough for the* Age *of the* World, *and ſooner doubt our own Reſolutions and Abilities, than fear the Failure of fit* Subjects *to entertain our Thoughts.*

Real Knowledge *is a nice thing; and as no Man can be ſaid to be* Maſter *of that which he cannot teach to another, ſo neither can the* Mind *it ſelf, at leaſt as to* Phyſical *matters, be allowed to apprehend that whereof it has not in ſome ſence a* Mechanical Conception; *for this* Knowledge *entring wholly by the Senſes, whoſe Objects only are* Bodies, *whereof their* Organs *have the Perception, but from the* Magnitude, Figure, Situation *and* Motion *of them, which are all* mechanically *to be conſider'd, or we come ſhort of a* Satisfactory Information, *it follows, that* Number, Weight *and* Meaſure *muſt be*

applied to annalize the Problems of Nature by which they were compounded.

This has been the Employment *of the* Experimenting *part of Mankind, and the* Deſign *of that* Glorious Inſtitution *of the* Royal Socity ; *whoſe Youthful Vigour carried them warmly on in the purſuit of* Nature, *then at a farther diſtance off ; catcht and graſp'd the* Proteus *thro' all its Changes. And ſince* Publications *of this* Nature *have been thought no ſmall Advancement to that great* Deſign, *becauſe it collects and preſerves ſeveral* ſmall Tracts, *which otherwiſe might poſſibly be loſt, the* Publiſher *has yielded to the Sollicitation of ſome Friends to undertake this* Work *with an* Engagement *to the* Learned, *of communicating (as conſtantly as hath ever been at any time practiſed) whatever of a* Philoſophical Nature *ſhall come to his hands; clearing the* Royal Society, *(which is no way concerned therein) from all the* Miſcarriages *he may poſſible commit ; and promiſes himſelf he ſhall never fail of* Materials *from the* Ingenious, *ſince he propoſes neither the mean end of* private Advantage, *nor thinks himſelf capable of the* Baſeneſs, *to ſtifle any Perſons* Diſcovery *till another may pretend to it ; being reſolved immediately to inſert in the next Tranſaction what ingenious Communications ſhall be ſo deſired, that the true Author be not defrauded of his due* Merit *and* Glory.